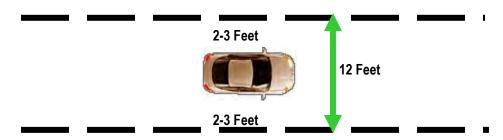


# **FACT SHEET**

Module 3.3

# **Mixing With Traffic**

Most lanes are twelve feet wide. Passenger vehicles are about six feet wide. If a vehicle was centered in the roadway, they would have three feet on either side. When mixing with traffic, be aware of the space available and have as a goal to keep empty space to your sides. Use space effectively and when other drivers need more space, be prepared to adjust your lane position to keep the vehicles as far away from your vehicle as possible.



#### **Intersection Maneuvers**

It is important that drivers understand the increased risk at intersections controlled either by stop signs or traffic signals when joining and/or crossing multi-lane traffic traveling at speeds up to 60 mph. While the procedures remain consistent, gap requirements increase substantially at higher speeds, whether crossing or turning left or right. New drivers must learn to be alert to multiple turn lanes with drivers cutting across lanes on multi-lane higher speed roadways.



# **Searching Intersections**

Knowing when and where to search depends on many factors: Is traffic heavy? Are pedestrians in the area? Are children playing nearby? Are there line of sight or path of travel restrictions? Are lane markings visible? What is the speed of traffic? When approaching intersections, start your search in advance. Turn your head and eyes to look at a 45-degree angle left and right and look ahead through the intersection to your target area for oncoming traffic and conditions. The search needs enough time to identify the intersection type and make speed or lane position adjustments to keep an open zone.

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As the intersection becomes more visible or when stopped, search 90 degrees to the left and right, by turning the head and eyes to search deep into the intersection. Search straight ahead into the target area.

Before moving from a stopped position, search again to the left, front, right. Look for the driver running a red light before you venture into the intersection.

## **Intersections Controlled by Traffic Signals**

Before entering a signalized intersection, check again for oncoming vehicles signaling a left turn and look for pedestrians in the crosswalk, bicyclists, and cross traffic. Make sure that they are stopped before you start to move. Whether first in line or in a line of vehicles, develop the habit of checking traffic and counting three seconds before moving. This provides some protection against drivers who fail to stop for a red signal or drivers ahead who suddenly brake to a rapid, unexpected stop.

# **Turning Right**

Do not move into the intersection until there is space in the next block. When turning right, yield right-of-way to pedestrians in the crosswalk. Where there is more than one turn lane, when exiting your lane, be sure to enter the corresponding lane in the new lane. Be alert for drivers crossing or drifting between lanes while making the turn. When turning right on red, stop and yield right-of-way to any vehicles, bicycles, or pedestrians in your intended path of travel.

#### **Turning Left**

While many signalized intersections on multi-lane streets with faster moving traffic provide special left turn lanes and/or delayed or advanced left turn signal lights, such protection is not always available. When the turn is not protection, the risk associated with a left turn increases significantly. In addition to the precautions listed for right turns, the driver must check:

- for oncoming drivers signaling for either left or right turns
- identify an adequate gap in oncoming through traffic
- determine whether there is space available in the lane to be entered
- and check for the presence of pedestrians in the crosswalk to the left.

Frequently, a driver wishing to turn left will signal left and move into the intersection on a green signal light, with wheels pointed straight ahead only to find that it is necessary to wait until the signal light turns red before it is safe to make the turn. In some states, that is a violation of traffic laws.

Prior to moving into a signalized intersection and stopping, the law requires that a driver wishing to make a left turn make certain there is space available in the street to be entered. Failure to do so frequently results in being unable to clear the intersection, creating what is commonly referred to as gridlock. This will certainly annoy other drivers and may lead to a traffic citation for blocking traffic. Montana laws require drivers to not block an intersection.

#### **U-Turn with Median Strips**

There are two major conditions with a U-turn at a roadway with a median separator. When there is a perpendicular intersecting roadway with the U-turn, and when there is only the U-turn.

With only the U-turn, and no side roads, "hugging" the median is the best behavior to allow traffic to turn from both directions without conflicting. This is much the same as two cars making a left turn at an intersection. They are turning in front of each other.

When there is a crossing intersection as well as the U-turn there should be signs or pavement markings to indicate where the car should be positioned to make the U-turn. A stop line and or a stop sign or yield sign positioned, along with yellow dividing pavement lines, would tell where the car should be positioned. Some of the intersections could have a special U-turn lane that would allow the driver to hug the median while at the same time allowing traffic from the crossing intersection to cross without conflicting with the vehicle making the U-turn.

In the absence of any traffic controls or pavement markings to tell a driver where to position for making the U-turn when there is a crossing intersection, the driver must be positioned to not block the path of the crossing traffic. This condition would require the driver to keep to the right of the intersection.

#### <u>Intersections Controlled by Stop or Yield Signs</u>

Entering or crossing a multi-lane street, with traffic traveling at higher speeds, at an intersection controlled by a stop or yield sign, requires critical time-space judgments. At a brisk rate of acceleration, crossing a two-lane roadway, 30 feet wide, requires a gap of about six or more seconds.

#### **Right Turns**

If turning right to merge into traffic traveling 30 mph, a gap of about eight or more seconds, 352 feet, is needed to accelerate to the speed of traffic. This will give the approaching driver from the left a following distance from you of four seconds. With traffic traveling toward the intersection at 55 mph, a gap of about 11 seconds is needed. That puts the car about 880 feet away from the intersection.

# **Left Turns**

Similar, but more complex problems exist for left turns. Since it is necessary to first cross the lanes of traffic traveling from the left, the decision of when it is safe to go becomes more complex. Assuming the approaching car from the left is not required to stop at the intersection, a gap of three to four seconds from the approaching vehicle is needed. If traffic from the right is moving 30 mph, a gap of 11 or more seconds, (484 feet) is needed make a left turn and enter the new lane of traffic.

Give the approaching driver from the right a 4-second following distance from you by accelerating to the speed of traffic. With traffic from the right traveling at 55 mph, a driver needs a gap of 14 or more seconds, (about 1130 feet) to complete the turn. When crossing a divided highway, it may be necessary to yield right-of-way before crossing both sets of roadway.

When stopped at or in an intersection, drivers are vulnerable to being rear-ended. Keep the front wheels straight until you are able to initiate your turn. In the event of a rear end crash, the straight tires will help prevent your vehicle from being pushed left into the oncoming traffic.

When stopped behind another vehicle, stop where you can see the vehicle's tires touching the pavement. If the vehicle should stall, you will have about 15 feet of front space to move around the vehicle.

#### Move with the flow of traffic

Try to keep speed the same as that of the surrounding vehicles. Any speed more than five miles per hour slower or faster than the flow of traffic tends to cause disruption in the traffic flow.

#### Reversible Lanes

In some large cities during rush hours, existing lanes are actually reversed for travel during rush hour. This allows the movement of large volumes of traffic quicker. Identified as reversible lanes, these lanes are marked with special double yellow broken lane line markers. In addition, signs at the side of the road and overhead lane signals (green or red) tell the driver which lanes can be used.

# Plan ahead for anticipated turns

In heavy traffic, know where to turn. Since it is frequently difficult to change lanes, plan to get into the proper lane at least two to three blocks in advance.

#### Yield to oncoming traffic and pedestrians in the crosswalk when turning left

Major intersections can be filled with distractions. The driver must locate a gap in oncoming traffic, while at the same time yielding to pedestrians in the crosswalk. Watch for other drivers ahead of you making the same turn – will they have to stop for pedestrians?

# Anticipate lane blockages and select the lane that allows movement with the least conflict

A visual lead of one to one-and-a-half blocks (20 -30 seconds ahead) helps to identify the open lane. Identifying a closed front zone such as double-parked vehicles or turning vehicles backed up in a lane well in advance provides time to make a lane change if necessary.



#### Sometimes there is no gap in which to make a lane change

Do not force a gap. Ask other drivers for permission to make the lane change by turning on the turn signal, changing vehicle position to lane position 2 or 3 to let them know you need to make a lane change. Use courtesy when asking the other driver to cooperate by making a gap for you. Return the courtesy when someone else needs space to maneuver.

## Predict traffic stoppages that could cause an intersection trap

Use time and space management techniques to position the vehicle to allow traffic searches 20 to 30 seconds ahead to identify conditions. Create time to determine if you will arrive at an open zone or closed zone. Adjust speed and have a goal to arrive at an open zone.

#### **Identify streets as one-way or two-way**

One-way streets are usually marked with arrows mounted on corner posts and close to the overhead signal light. One-way streets have only white lane markings - no yellow lane markings. A clue is parked cars on both sides of the street facing in the same direction.

#### **Using a Shared Left Turn Lane**

Shared left turn lanes are frequently found between intersections where a large number of vehicles turn left across a moderate to high volume of traffic that is traveling at higher rates of speed. Shared left turn lanes may be used by drivers turning from or onto a roadway. They are to be used only by drivers making a left turn.



Shared left turn lanes are marked with solid and broken yellow lines on both sides of the lane. White turn arrows indicate that drivers traveling in either direction can use the lane. Shared left turn lanes are intended only for vehicles making left turns. As a rule, drivers should not travel more than about 200 feet while slowing to stop or turn across traffic, or accelerating to enter traffic. When traffic is so heavy that a safe gap in oncoming traffic is not available, drivers can move out of the left travel lane, slow, or stop, if necessary, and then complete the left turn when there is a safe gap in traffic. Some jurisdictions specify a shorter distance than 200 feet. The city of Boise requires drivers to drive no more than 100 feet in a shared left turn lane.

#### **Use Positive Communication**

In today's society, what may have worked as a good communication sign 20 years ago, may now be interpreted as aggressive. Evaluate the situation to determine what type of communication, if any, is needed. Use your communication technique in time for other drivers to interpret and react to your intention. Communication techniques includes using turn signals, appropriate hand signals, flashing headlights or tapping the brake light, and adjusting lane position. Back-up lights communicate the vehicle will be moving in reverse.

The horn can be hazardous to others if used when attention is needed to avoid something. A loud blast of a horn can cause a pedestrian, bicyclist, runner or child to react instinctively and put them in greater danger. A quick tap of the horn may be the answer to alert others to your presence. Making eye contact may or may not work. Some drivers may see this behavior as aggressive. Recognize when a thumbs up or some other type of positive behavior indicating appreciation will be welcomed.

Be alert and prepared to accept and interpret communication from other drivers. Be alert to turn signals, speed, where a driver may be looking, front tire position, and brake lights. Some signals are used intentionally to let you know what action they may take. Others you may need to interpret based upon lane position, tire position, driver inattention to the road ahead.